From: Hayter, Earl J ERDC-RDE-EL-MS CIV

To: Miller, Garyg

Cc:Sanchez, Carlos; Foster, AnneSubject:RE: San Jacinto Model Studies

Date: Wednesday, September 20, 2017 10:32:41 AM

Attachments: <u>Draft Report San Jacinto River Site Hurricane Ike Modeling-updated.pdf</u>

Gary,

Attached is a modified report. I yellow highlighted some new text that I added to Section 5 (pg 22). Please let me know if you have any questions.

After our conversation yesterday, I STRONGLY recommend that I be included on any future calls/meetings where the modeling is being discussed to avoid misinterpretation of the results.

Earl

----Original Message-----

From: Miller, Garyg [mailto:Miller.Garyg@epa.gov]

Sent: Thursday, July 6, 2017 5:54 PM

To: Hayter, Earl J ERDC-RDE-EL-MS CIV < Earl.J. Hayter@erdc.dren.mil>

Cc: Sanchez, Carlos <sanchez.carlos@epa.gov>; Foster, Anne <Foster.Anne@epa.gov>

Subject: FW: San Jacinto Model Studies

Earl,

The San Jacinto PRPs have your input files, but not the executable and output files, regarding the Alternative 3N model study. They have asked the questions below - do you have any additional information/documents regarding these issues? Also, do you have an opinion regarding what would be necessary to answer these questions?

Thanks.

Gary Miller

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<sup>\*</sup> Anchor QEA (AQ) recently ran the input files provided by USACE for the worst-case storm event (described in the USACE August 2016 Final Report) in our sediment transport model and the modeling results showed the existing cap should be stable under those conditions; however, the USACE report indicates there could be erosion

over 80% of the cap area for the same storm. Based on USACE's previous review of AQ's modeling, can USACE identify any fundamental differences between its model framework and AQ's that can explain this discrepancy?

- \* AQ's understanding is the USACE sediment transport model framework is based on the AQ coarse grid long-term fate framework:
- o Can USACE clarify how the USACE model was setup starting from the wave model, to the hydrodynamic, and finally the sediment transport models?
- o What input files were used from AQ, and which were modified?
- \* AQ understands how the hydrodynamic (flow and stage) input files are setup, and how the grid is setup:
- o Were there any other changes to the upstream sediment load, the bedmap, or bed properties (particle diameters, bulk density, bed content)?
- \* Can USACE describe its sedtran model framework? Does the framework include bedload that might explain how it can predict high scour depths?